

NWPMA

Monthly Newsletter

'Government and Private
Agencies Working Together
for Better Pavements'

Chair - Eric Edwards
Vice Chair - Randy Firoved
Sec/Treas - Sue Schuetze

Vol. 2, No. 5

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REMEMBER?????

You Shouldn't Feel That PMS Is
Being Forced Upon You But It Is
The Smart Thing To Do!

The Purpose of our organization is

- To foster mutual and beneficial relationships between and among members and with other allied agencies, institutions, organizations, and business firms.
- To improve the ability of the members to effectively and efficiently manage their pavements.
- To promote pavement management technology transfer, research, and education.
- To provide a common forum for the open exchange of ideas related to pavement management systems.

Howard Hamby, Chair
FarEast Chapter, NWPMA

WORDS FROM THE CHAIR

Driving back from the EBoard meeting, I am thankful that the EBoard members are willing to take time from their busy schedules to help guide the NWPMA thru the formative stage we are in. Without their assistance, and the support of their agencies, we would not be as far along as we are.

Thanks to Paul Sachs, on loan to FHWA for a while, for his assistance and support. He will be nearby and hopefully can join us often.

Eric Edwards, NWPMA Chair

AUTOMATED DATA COLLECTION
EQUIPMENT EVALUATION UNDERWAY

We are officially underway with the first vendor running the test sites this week. A hearty thank you goes out to Bill Wills of Clark County, Bill Whitcomb of the City of Vancouver, Mike Rykba and Joel Condor of Marion County, Luci Moore of ODOT, and Paul Sachs, WSDOT for their extra effort in identifying and locating the approximately 50 test sites needed for the evaluation. Another thank-you goes to Keith Anderson of the WSDOT Research Office for cranking out an agreement in such a short time.

Funding participants include WSDOT TransAid Service Center, Research Office, Data Office, Materials Lab and NWT2 Center; ODOT Research Center and T2 Center; and the Ass'n of Oregon Counties, AWC, and CRAB.

Roger Smith, Tom Freeman, and Don Penchott of the Texas Transportation Institute have selected and marked the sites for the vendors. They are also surveying the sights for 'Ground Truth'. Pasco will be the first company to run the course with the others to follow over the next few months. Pasco completed their data collection run May 24th. The data collection deadline for all surveys is July 31.

We are looking for volunteer agencies to conduct a production level visual inspection of the test sites so that we can evaluate our current methods of data collection. It should only take a day or two, depending on whether a walking or driving survey method is used. No other automated data collection equipment evaluation has included this element and is critical to our study. Although there is an open invitation for agencies to run the sites informally for their own information, we strongly encourage your agency to participate formally by inspecting all sites and providing the information in order to provide the maximum possible number of samples. If you are interested, please contact Paul Sachs at (360) 705-7539 or Dan Sunde at (360) 705-7383 so that we can provide instruction and procedures. We expect to have preliminary results of the evaluation by early October with a final report by the end of the year. This will allow adequate time for a formal review of the report prior to publishing.

PAUL SACHS TO BE SHARED WITH THE NATION

Paul Sachs, of the TransAid Management Systems Office, has been selected by FHWA headquarters in Washington, D.C., to work on a special, nationwide project. FHWA recognizes (as we all do) that Paul is, in their words, "...an exceptionally talented Pavement Management Engineer", "... one of the Nation's leading experts on PMS at the local and MPO levels" and "...one of the 'pioneers' of PMS at the local level".

Paul will be on loan to the FHWA for fifteen months starting July 1, 1995. He will be assisting state DOT's around the country in implementing pavement management systems at the local level.

He will be providing on-site assistance, establish a communications network among agencies, clarify the role of MPOs, and help FHWA determine how to provide assistance to the states.

Paul's contribution to Washington's Pavement Managers and to the TransAid Service Center has been greatly appreciated. His technical contributions to the *Guide for Local Agency Pavement Managers*, his lead in

creating the *Pavement Surface Condition Rating Video*, his facilitation of the Automated Data Collection Equipment Evaluation, and development of the simplified pavement management system, are just a few examples of Paul's excellent professional contribution. He will be greatly missed this next year. The Feds owe us big time!

During his temporary assignment, Paul will work out of FHWA's Division Office in Olympia.

ANNUAL CONFERENCE

The NWPMA Annual Conference will be held in Olympia October 17-19. Pat Carroll and Dave Nichols, Thurston County, and Greg Stoltz, City of Olympia, are the Chairs of the conference. They are developing a list of topics and speakers, if you have any topics, speakers, concerns or input, please give Pat or Dave a call at (360) 754-4580. Included on the pre-preliminary schedule are: a Thump-off and Rate-off the first morning; a guided tour of Transaid Headquarters; a scrumptious banquet including the naming of the 1995 Pavement Manager of the Year; vendor's displays; and lots of good information!

NorthWest Pavement Management Association Newsletter
c/o County Road Administration Board
2404 Chandler Court SW, Suite 240
Olympia, WA 98504-0913

MEETING NOTICES

FAREAST CHAPTER

Chair Howard Hamby has issued the following meeting notice:

It is time to get ready for our next NWPMA FarEast Chapter Meeting. I would like to schedule this meeting for Thursday, June 29 at 9:00 AM, at the Spokane County Public Works Building, Conference Room C on the 3rd floor. If this date and time are not satisfactory please call and let me know. With the deadline for the implementation of a Pavement Management System fast approaching there is an increased interest from counties and cities. I still believe that we can be a lot of help to each other with interagency support and the sharing of information.

PROPOSED AGENDA:

- 1) the challenges of the Pavement Management Module in CRIS; Steve Stairs, PMT, Spokane County.
- 2) Update on Automated Data Collection on BST roads; Don Meyers, Pavedex
- 3) Executive Board Update, Howard
- 4) Report on Visual Rating Class held in Moses Lake; Steve Stairs
- 5) Discussion on the survey developed by Chuck Greninger, Grays Harbor, on what other agencies are doing for a Pavement Management System; Howard
- 6) Discussion on the Guide to Pavement Management, developed by WSDOT Transaid; Howard Hamby
- 7) Discussion on Easy Rate, a software developed by Kitsap County that uses Microsoft Access data base for collecting visual data and downloading into your PMS; Howard Hamby.

Bring a list of ongoing projects in your area for 1995, if you have anything of interest to anyone else, they could probably contact you and learn more about the process. This is Information sharing in action.

If you have any ideas for topics and discussions or would like to be involved in any presentations at the chapter meeting, please contact me at (509) 324-3458.

Howard Hamby, Chair

NORTHWEST CHAPTER PUGET SOUND CHAPTER

Will be holding a joint meeting in Renton on the morning of Wednesday, July 12th, location and topics to be announced. Call NW Chair Randy at (206) 388-6420, or PS Chair Pat Carroll at (360) 754-4580 for comments or details. Stay for interesting conversation over lunch so you can attend...

VISUAL RATING TECHCOM

Chair Bill Whitcomb has announced that there will be a meeting of the Visual Rating Technical Committee in Renton on the afternoon of Wednesday, July 12th. His main topic will be the proposed printing of a pocket-sized Visual Rating Manual. Call Bill at (360) 696-8290 for comments or details.

CENTERLINE PMS USER GROUP

The first meeting of the Centerline PMS User Group was held in late May. The NWPMA Newsletter has received no details, but will hopefully be able to provide information on past and upcoming meetings.

TRANSPEED COURSES

include a course on using the new WSDOT Pavement Design Manual and the associated software sometime in September or October. It will be taught by Linda Pierce, WSDOT, Joe Mahoney, UW, and Newt Jackson, R'td, the developers of the manual. The TranSpeed flyer will come out later in the year, we will provide details herein. To register or for more information call Engineering Professional Programs at (206) 543-5539.

NORTHWEST T2 CENTER

The NWT2 Center Training Schedule has been sent to local agencies, with many events scheduled, including several on pavements. Call Stan Sanders, Training Coordinator at (800) 973-4496 or (360) 705-7477.

MEETING MINUTES

SOUTHEAST CHAPTER

Met May 3rd, 1995, at Walla Walla. 9 in attendance, 4 from counties, 5 from cities. Read over the April 1995 NWPMA Newsletter. This was a "first time" meeting for some of the attendees. Discussed the reason for Chapters and Technical Committees. Handed out a rating Manual to City of Walla Walla. They are interested in hiring a consultant to do their visual ratings. The Visual Technical Committee might be useful in formalizing a list of consultants? We would not be recommending any certain company, just providing a list. Sue will pass this on at the next EBoard Meeting. Sue is canceling the July SE Chapter meeting due to it being the construction season. SE Chapter will hold their next meeting September 6, 1995 at Franklin County Public Works at 3416 Stearman Street, Pasco, at 10:00 AM. We will be gearing up for the Fall Conference. Adjourned at 11:45 AM. (Not part of the meeting, but on May 9th, Sue met with the City of Prosser. They are going to use the TransAid Simplified PMS and utilize Sonja, a part time County employee, already trained to collect visual data. Another example of 'Counties helping Cities'.)

NorthWest and Puget Sound Chapters

Held a joint meeting at the City of Everett Transit Training Center on Wednesday, May 10th. The turnout was encouraging, with plenty of discussion among the attendees prior to the two presentations: Lisa Woltrink of the Puget Sound Regional Conference discussed how PSRC allocates the regions ISTEA funds among the agencies involved. Several agencies told of how they worked within the system to receive funds. Roy Scalf, Snohomish County Public Works, discussed how he used the project selection and network analysis features of his PMS program to determine their resurfacing and rehabilitation programs in Snohomish County. There was a lot of general discussion about the workings of PMS, with quite a few good ideas and solutions presented.

Design TechCom

Chair Dave Nichols held a meeting of the Design/Rehabilitation Technical Committee at the City of Everett Transit Training Center on the afternoon of May 10th. The guest speaker was Linda Pierce, WSDOT Materials Lab, discussing the publishing and distribution schedule for the 'WSDOT Pavement Design Manual'. It will be available sometime in June, with notices going out to all agencies as soon as they decide how to handle it. There will also be a week-long course in the use of the Manual, offered thru TranSpeed.

ADC TechCom

The Automated Data Collection Technical Committee met in Vancouver May 18th to discuss the final details on the ADC Evaluation Project, please see the article on the front page for details. If you are interested in rating the segments and comparing your results with everyone else, contact Paul or Dan.

Executive Board

The EBoard met in Ellensburg on May 17th. Discussion included: The Logo: Dan had several options provided by WSDOT Logo People, none of which was unanimously agreeable. Dan will get back to his logoists with our input. Meeting Attendance: for the recent Joint Chapter meeting in Everett, Jim made calls to other agencies, all showed up. Howard will be doing a survey of surrounding agencies. Discussion included meeting locations, joint meetings, and arranging carpools. Fall Conference: planning efforts are on schedule, make your plans to attend now! Meeting Revisions: at the Fall Conference we will be voting on a Charter revision, going from 4 Quarterly Meetings to a Spring Workshop and a Fall Conference, as we actually do. Association Purpose: discussion about the purpose of the NWPMA as providing opportunities for networking and support of local agencies in implementation and operation of a Pavement Management System.

PAVING ON THE INFORMATION SUPERHIGHWAY

As an additional method of distributing this newsletter, TransAid has begun publishing it on the TransAid page of the WSDOT Internet Home Page. Anyone with access to Internet can view or print a copy of the letter directly. As new newsletters are published, past editions will be stored on the Internet in an historical library for future reference. The *NWPMA Newsletter* can be accessed at:

[http://www.wsdot.wa.gov/TransAid/
Publicat.HTM](http://www.wsdot.wa.gov/TransAid/Publicat.HTM)

(all on one line, no spaces). It is listed under "Management Systems Office Publications".

Any other NWPMA information can also be added as it develops.

As your agencies get into Internet, TransAid plans to have resources available for you. Currently *A Guide for Local Agency Pavement Management* is being reformatted for publishing on the Internet. It is being used by the WSDOT as a pilot project and will be the first complete WSDOT publication stored there. The guide will look just like the hard copy (with photos, forms, and all) but will incorporate enhanced features such as hypertext capabilities. The table of contents, flow chart, and index will be hypertext so that with a click of the mouse on key works, the reader will be taken directly to the appropriate location within the document. As with the newsletter, the guide can be viewed on screen or printed in full or in part. Since this is a first time effort, there is a learning curve involved. And there are the added complications of translating the document into a new software program and a large number of photos. As a result, it will take a few months to see the final product. TransAid anticipates a late summer completion date.

TransAid is also in the process of publishing all pavement management information on the TransAid page. Links to WSDOT and AASHTO research programs as well as direct links to two national research libraries will be completed by the end of May. The Management Systems Office and the NWT2 Center are working with the WSDOT Staff Development Office to place copies of self-training courses and other training material on the TransAid page for direct access by local

agencies. The first course is anticipated to be available by the end of July.

US ARMY CORPS OF ENGINEERS PAVEMENT AND TRANSPORTATION SOFTWARE AVAILABLE

Retrieved from the Internet:

The PCASE (Pavement-Transportation Computer Assisted Structural Engineering) Program was established to develop and provide computer programs for use in the design and evaluation of transportation systems. Some PCASE programs include rigid and flexible airfield design by conventional and layered elastic methodologies, rigid and flexible road design, as well as railroad design and evaluation programs. Once these programs are approved, notification is made by distribution of an ETL, and inclusion with new TM's. The latest version of all PCE programs are available to users 24 hours a day via the PCASE Bulletin Board, Internet and of course WWW.

The programs of interest would include Rigid Road Design (RRD, in accordance with TM 5-822-6), Flexible Road Design (FRD, in accordance with TM 5-822-5). DCP Evaluation (still in draft), allows expedient evaluation of unsurfaced and gravel roads.

Available from:

BBS: (601) 634-3386, 12/24/96/14.4

ftp Address: [pavement.wes.army.mil](ftp://pavement.wes.army.mil)

WWW Address:

<http://pavement.wes.army.mil/pcase.html>

THE IMPORTANCE OF TIMELY IMPROVEMENTS AND REHABILITATIONS

A popular way to save money now is to delay needed work until later. These two articles discuss the additional costs involved when we delay what we should be doing now.

The Cost of Deferring Capital Investment

When highway and bridge deficiencies are identified, the cost of improvement assumes that the improvement will be made at that time. If insufficient funds are available, or for some other reason the improvement is not made, the deficiency is likely to worsen. The difference between the cost of fixing the problem when it first develops or waiting until a later date is the cost of deferral. The total cost of deferral has three components:

- a. The capital cost associated with a generally more expensive improvement to repair a more significant problem
- b. The highway vehicle operating costs and lower speeds imposed on highway users over the time between identification of the problem and the time of improvement.
- c. The increased user cost incurred during the improvement, consisting of detouring, delay, and potentially higher numbers of accidents through and around construction zones.

Deferring any highway improvement beyond the point at which its condition and/or performance warrants the improvement will increase the cost that must ultimately be paid by highway users to restore the road's serviceability. Between the time that a need for improvement is identified and the time action is taken, the roadway continues to deteriorate and may require a more costly improvement.

If the problem identified happens to be a physical one (such as pavement cracking or rutting), delaying the needed improvement can expose the pavement to continued deterioration. If remedial action is taken in timely fashion a simple resurfacing may be all that is required to restore the road's serviceability. If, on the other hand, action is delayed, further deterioration can allow the surface pavement stress to extend into the road's base and subbase.

Pavement damage from freeze/thaw action on damaged pavement is a common condition that results from a delay in repair. When this happens, a more costly pavement reconstruction improvement may be required, at a cost as high as three times the cost for resurfacing. Not only will the cost be higher, but the time and public inconvenience of major reconstruction far exceeds that required for simple resurfacing.

From *The 1991 Status of the Nation's Highways and Bridges: Condition, Performance, and Capital Investment Requirements*, FHWA, 11/91

The Costs of Deferring Maintenance

Although initial surface deterioration on lightly paved roads is relatively slow, distress accumulates, and the rate of deterioration accelerates.

The actual life of a road is a function of four sometimes complex and highly interrelated factors: 1) the initial design and construction of the roadway; 2) the loads applied each year; 3) environmental conditions; and 4) the frequency and type of maintenance. Negative values in all these contribute to the decreased life of paved surfaces.

A relatively small amount of deterioration occurs in the first 75 percent of a road's life. But after that, the decrease is dramatic. After 75 percent of a road's life has gone by, it is natural to assume the present rate of deterioration will continue. Such reasoning can be disastrous, in terms of the condition of the road and the financial consequences. For example, if a pavement is supposed to last nine years, at seven years the road will be on the brink of rapid deterioration. What would have cost \$1,000 to rehabilitate to an almost new condition the year before will now cost between \$4,000 and \$5,000.

Knowing What to Defer

In these times of tight budgets in many cities and counties, the decision of whether or not to defer maintenance and rehabilitation of streets and highways has become more important than ever. Aside from budgetary constraints, the forces of nature can also force deferred maintenance. In choosing what to defer, most cities and counties rely on the experience and advice of the maintenance supervisors.

Some of the more popular activities that can be deferred are litter pickup, mowing, and restriping. Restriping should not be left undone too long, though, without endangering the public safety and thereby incurring possible civil suits.

Activities which should *not* be deferred are patching potholes and cleaning drainage systems. Failure to repair potholes has three important results.

First is the increased number of complaints by users. Second is that as potholes are left unrepaired, they lead to a rapid disintegration of the road surface. Third, potholes are a contributing factor to an increase in accidents leading to property damage, injury, and even fatalities.

(Source: *Arizona Roads*, July 1987; *KUTC Newsletter*, February 1988.)